

REMARKS

Further and favorable reconsideration is respectfully requested in view of the foregoing amendments and the following remarks.

Claims 1-11 are pending in this application. By this Amendment, claim 11 is added.

Support for new claim 11 can be found at page 6, lines 10-21, and Figure 1A.

No new matter is added.

I. Claim Rejection Under 35 U.S.C. § 103

The Examiner rejects claims 1-4 under 35 U.S.C. 103(a) as being unpatentable over Asada (JP 08-311387) in view of Delgado (U.S. Patent No. 5,045,569). Applicants respectfully traverse the rejection.

The Examiner asserts that Asada teaches forming an ink for printing in which a water in oil type emulsion is formed with a styrene polymer resin as the hydrophobic polymer and acrylic acid resin or sodium polyacrylate as the hydrophilic portion. The Examiner admits that Asada fails to teach the use of ammonium acrylate.

The Examiner relies on Delgado as teaching forming water in oil type emulsions with acrylates, where suitable monomers include ammonium acrylate. The Examiner takes the position that it would have been obvious to one of ordinary skill in the art at the time the invention was made to use ammonium acrylate in place of the acrylate of Asada.

Initially, Applicants' claim 1 recites "micelle structural particles formed by aggregating molecules of ammonium acrylate to dispersed particles containing phenol resin." The micelle structure of Applicants' claimed ink is clearly demonstrated in Figure 2. The Examiner has not mentioned the micelle structure of Applicants' claims. Additionally, neither of the cited references teach such a structure. Accordingly, for this reason alone, the combination of references relied upon by the Examiner fails to render the invention of Applicants' claims obvious.

Additionally, the micelle structural particles of Applicants' claims are formed by aggregating molecules of ammonium acrylate to dispersed particles containing phenol resin. Thus, the resin component of Applicants' claim 1 is a phenol resin, rather than a styrene polymer resin, as asserted by the Examiner. Although Asada does disclose a phenol resin at paragraph [0013] of the machine translation, this phenol resin is included in the oil phase. This is clearly distinct from Applicants' claimed ink, which contains phenol resin in the dispersed particles. (Please see Applicants' Figure 1A.)

Further, the Examiner acknowledges that Asada does not teach the use of ammonium acrylate. The Examiner relies on Delgado as teaching ammonium acrylate, and takes the position that one skilled in the art would have substituted ammonium acrylate in place of the acrylate of Asada. However, the Examiner has provided no rationale as to why one of ordinary skill in the art would have had a reasonable expectation of success in making such a substitution. The guidelines set forth in MPEP 2141 indicate that in order to assert obviousness based upon simple substitution, the Examiner must provide "a finding that one of ordinary skill in the art could have substituted one known element for another, and the results of the substitution would have been predictable." Such a finding has not been provided.

Lastly, Asada fails to teach or suggest dispersed particles containing phenol resin and polyvinyl alcohol, as recited in Applicants' new claim 11. Although Asada discloses polyvinyl alcohol in paragraph [0017] of the translation, the polyvinyl alcohol in Asada is used as a thickener in the water phase. This is clearly distinct from Applicants' invention, wherein the polyvinyl alcohol (12) and the phenol resin (11) are together in the dispersed particles (1), rather than in the water phase (i.e., the recited dispersion medium for dispersing the micelle structural particles).

Delgado does not cure the deficiencies of the Asada reference. Although Delgado teaches ammonium acrylate, Delgado does not teach or suggest micelle structural particles formed by

aggregating molecules of ammonium acrylate to dispersed particles containing phenol resin (claim 1), and polyvinyl alcohol (claim 11).

Therefore, claim 1 would not have been rendered obvious by Asada in view of Delgado. Claims 2-4 and 11 depend from claim 1, and thus also would not have been rendered obvious by Asada in view Delgado. Accordingly, reconsideration and withdrawal of the rejection are respectfully requested.

II. Conclusion

In view of the foregoing, it is respectfully submitted that this application is in condition for allowance. Favorable reconsideration and prompt allowance of claims 1-4 and 11 are earnestly solicited.

Should the Examiner believe that anything further would be desirable in order to place the application in better condition for allowance, the Examiner is invited to contact the undersigned at the telephone number set forth below.

Respectfully submitted,

Shinya MIZONE et al.

/Andrew B. Freistein/

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Andrew B. Freistein
Registration No. 52,917
Attorney for Applicants

AES/ABF/vah
Washington, D.C. 20005-1503
Telephone (202) 721-8200
Facsimile (202) 721-8250
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